In the Claims

- 1. (currently amended) A coating composition comprising
- a1) physically drying film forming binder resin or resins;
- a2) thermally cross linking film forming binder resin or resins;
- a3) radiation curable film forming binder resin or resins;
- a4) autoxidatively drying film forming binder resin or resins; or
- a5) a combination of binder resins with at least two different crosslinking mechanisms selected from a1), a2), a3) and a4);
- b) a polymer or copolymer levelling agent of formula (I)

$$In-[(M)_x-(E)_y]_n \qquad (I)$$

obtained by nitroxyl mediated controlled free radical polymerization wherein

b1) polymerization in the presence of an alkoxyamine initiator/regulator of formula

b2) polymerization in the presence of a stable nitroxyl free radical of formula

wherein

In is the initiator fragment starting the polymerization reaction;

M is at least one monomer selected from the group consisting of acrylic acid, methacrylic acid, acrylic acid (C_1 - C_{22})alkyl esters, acrylic acid (C_1 - C_{22})hydroxyalkyl esters, methacrylic acid (C_1 - C_{22})alkyl

esters, methacrylic acid (C_1-C_{22}) hydroxyalkyl esters, acrylic acid (C_1-C_{22}) alkyl esters or methacrylic acid (C_1-C_{22}) alkyl esters which are substituted by amino, (C_1-C_{22}) alkylamino, (C_1-C_{22}) dialkylamino, $-SO_3H$, epoxy, fluoro, perfluoro or siloxane groups, styrene, substituted styrene, acrylamide and methacrylamide, N-mono (C_1-C_{22}) alkyl acrylamide, N,N-di (C_1-C_{22}) alkyl acrylamide, and a multifunctional monomer with two or more ethylenically unsaturated bonds; provided that the amount of unsubstituted acrylic acid (C_1-C_{22}) alkyl esters or/and methacrylic acid (C_1-C_{22}) alkyl esters is more than 30 % by weight based on the weight of the total monomer mixture;

E is a group bearing at least one stable free nitroxyl radical, which is bound via the oxygen atom to the polymer or copolymer; or a group which results from a substitution or elimination reaction of the attached stable free nitroxyl radical;

- x is the total number of monomer units, which is a number between 5 and 5000;
- y is a number 1 or greater than 1 indicating the average number of end groups E attached to the monomer sequence $(M)_x$;

n is a number from 1 to 20; and

- c) optionally water or/and one or more organic solvents.
- 2. (previously presented) A coating composition according to claim 1, comprisinga2) a thermally cross linking film forming binder resin or resins; ora3) a radiation curable film forming binder resin or resins.
- **3.** (**previously presented**) A coating composition according to claim **1**, comprising a2) a thermally cross linking film forming binder resin or resins.
- **4.** (previously presented) A coating composition according to claim 1, comprising a2) a thermally cross linking film forming binder resin or resins without water and organic solvent, which is in the form of a solid powder.
- 5. (canceled)

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6. (canceled)

- **7.** (currently amended) A coating composition according to claim [[5]]1, wherein the leveling agent of formula (I) is obtained by
- b1) polymerization in the presence of an alkoxyamine initiator/regulator of formula (O1)

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- **8.** (previously presented) A coating composition according to claim **1**, wherein the levelling agent, component b), has a polydispersity of between 1.0 and 2.0.
- **9.** (previously presented) A coating composition according to claim **1**, wherein the levelling agent, component b), has a glass transition temperature between 20° C and 200° C.
- **10.** (previously presented) A coating composition according to claim **1**, wherein the levelling agent, component b), is composed of at least 30 % by weight of tert-butylacrylate and/or tert-butylmethacrylate, based on the weight of total monomers.
- **11. (previously presented)** A coating composition according to claim **1**, wherein the levelling agent, component b), is a linear polymer or copolymer, where in formula (I) n is 1.

- **12.** (previously presented) A coating composition according to claim **1**, wherein in formula (I), component b), y is 1.
- **13.** (previously presented) A coating composition according to claim **1**, wherein the levelling agent, component b), has a number average molecular weight of between 3000 to 50000 g/mol (Dalton).
- **14.** (previously presented) A coating composition according to claim **1**, wherein the levelling agent, component b), is composed of at least 30 % by weight of tert-butylacrylate and/or tert-butylmethacrylate, and 0.5 to 50 % of a functional monomer which is selected from the group consisting of acrylic acid, methacrylic acid, acrylic acid (C_1 - C_6)hydroxyalkyl esters, methacrylic acid (C_1 - C_6)hydroxyalkyl esters, acrylic acid (C_1 - C_6)alkyl esters and methacrylic acid (C_1 - C_6)alkyl esters which are substituted by amino, (C_1 - C_6)alkylamino, (C_1 - C_6)dialkylamino, epoxy, fluoro, perfluoro or siloxane groups.
- **15. (previously presented)** A coating composition according to claim **1**, wherein the levelling agent, component b), is composed of at least 50 % by weight of tert-butylacrylate and/or tert-butylmethacrylate and is a solid at room temperature.
- **16.** (previously presented) A coating composition according to claim **1**, wherein the levelling agent, component b), is present in an amount of 0.1 to 15% by weight, based on the weight of the film forming binder resin or resins, component a).
- **17. (previously presented)** A process for improving the levelling of a coating composition according to claim **1**, which process comprises the steps of applying the coating composition to a substrate and exposing it to thermal energy or electromagnetic radiation in order to obtain a homogenous solid coating.

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